

NEW SOLAR HOMES PARTNERSHIP

HOME BUILDER'S CASE STUDY

Centex Homes



PROJECT

Avignon - Pleasanton, CA

Avignon is a Centex Homes “Powersave Plus” community and the first Zero Energy* energy efficient new home community in Alameda County. These homes provide cost-effective, energy features and roof-integrated solar electric systems as standard features. *Avignon homes exceed Title 24 Standards by 15 percent, reducing home owners’ average electric bills by 70 percent.*

Avignon features luxury French-inspired homes ranging from 3,670 to 6,340 square feet nestled in a picturesque vineyard setting. Homes in this community are comparatively priced for the area with extensive upgrade options available and energy efficient solar electric systems included in every home.

MAKING THE DECISION

Centex aims for Avignon to be a leader in preserving the environment by using fewer natural resources and producing less greenhouse gasses than other communities. In addition to photovoltaic (PV) systems that produce reliable, clean, and renewable electricity every day, the homes’ tight building envelopes and well-designed, two-zone HVAC systems offer home owners improved comfort and quality.

CHALLENGE

Jeff Jacobs, project manager for the Centex Homes’ Northern California division, is an energy efficiency evangelist in the building industry. “It’s the right thing to do,” he says. But he acknowledges the challenge of convincing home buyers and builders — including his own bosses and co-workers — of the merits of super energy efficient homes. “Most home sales people do not know how to market solar energy to home buyers,” continues Mr. Jacobs, “and most consumers don’t demand it.”

SOLUTION

Centex Homes focuses on educating homeowners about the economic incentives for buying solar. They explain to home buyers that the PV system is hooked up to the local utility grid, so electricity can be drawn when needed, and sold back to the utility company for home owner credit when excess electricity is produced by the system.

To appease buyers’ concerns about the aesthetics of solar, Avignon homes feature SunTiles® from SunPower, which blend into the roofline and architectural style of the homes.

* Centex Homes is part of the Department of Energy’s Zero Energy Home program. A Zero Energy Home combines state-of-the-art, energy efficient construction and appliances with commercially available renewable energy systems such as solar water heating and solar electricity. This combination can result in net zero energy consumption from the utility provider. The Zero Energy Home program formed the foundation for the New Solar Homes Partnership.

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"We're so happy to have solar because over the summer months we've been generating so much power – and it makes us feel green. It's easy to use...there's hardly anything the home owner has to do."

– Kevin Q., Avignon resident

PERFORMANCE RESULTS

Avignon homes are built to high efficiency standards, which specify tight ducts, mechanically designed heating and air conditioning systems, spectrally selective glass windows and properly installed insulation; and, they exceed California's Building Title 24 Standards code, by at least 15 percent. Licensed engineers designed the HVAC system for optimal performance and third party inspectors test for quality and performance. *The cost benefit of an energy efficient home is particularly apparent during peak power periods when monthly electric bills average only \$39.*

CENTEX HOMES

Centex Homes' primary focus is in building homes that use efficient, clean and renewable energy, helping to create a stronger economy, a cleaner environment and greater energy independence for America. The Dallas-based company was founded in 1950 and is one of the nation's leading home building companies. Centex operates in major U.S. markets in 25 states, and delivered more than 35,000 homes in the United States in its most recent fiscal year.

specifications

CITY: Pleasanton, CA

OF SOLAR HOMES: 30

SOLAR PROVIDER: SunPower™

UTILITY: Pacific Gas and Electric (PG&E)

AVERAGE SYSTEM SIZE: 3.5 kW

ANNUAL ENERGY PRODUCTION: Estimated 4,251 kWh per home

MODULE TYPE: SunPower SunTiles®

INVERTER: SPRx Solar Inverter Monitor